

WHAT IS CLAIMED IS:

1. A front lighted micro liquid crystal display comprising a liquid crystal display, an L-shaped wedge prism with a leg portion and wedge foot portion, the wedge foot portion having a first surface adapted to receive liquid crystal display, an  
5 opposing sloped second surface, the leg portion having a top surface, a shoulder, a third surface extending from the top surface to the shoulder, the shoulder contiguous with the second sloped surface;

a prismic lens with a sloped base having an angle of slope reciprocal to the angle of slope of the sloped second surface and an opposing front lens surface lying in  
10 a plane closely parallel to the plane of the first surface;

a polarizing medium positioned next to the sloped second surface;

a partial transmission mirror positioned between the partial polarizing medium and the sloped base; and

a light source adapted to emit light into the top surface of the leg of the L-shaped  
15 wedge prism to illuminate the liquid crystal display so that the image of the liquid crystal display can be emitted through the prismic lens for viewing.

2. The front lighted micro liquid crystal display according to Claim 1 wherein the first surface has an antireflective coating and the sloped second surface has an antireflective coating.

20 3. The front lighted micro liquid crystal display of Claim 1 wherein the polarizing medium and the partial transmission mirror are combined as a single component.

4. The front lighted micro liquid crystal display of Claim 1 wherein the third surface and the shoulder are covered with reflective media.

5. The front lighted micro liquid crystal display according to Claim 4 wherein the reflective media is a reflective pad.

6. The front lighted micro liquid crystal display according to Claim 4 wherein the reflective media is a reflective coating on the third surface and the shoulder.

5 7. The front lighted micro liquid crystal display according to Claim 1 wherein the first surface and the second sloped surface have an antireflective coating and the third surface and shoulder are covered by a reflective media.

8. The front lighted micro liquid crystal display according to Claim 7 wherein the reflective media is a reflective pad.

10 9. The front lighted micro liquid crystal display according to Claim 7 wherein the reflective media is a reflective coating.

10. The front lighted micro liquid crystal display according to Claim 1 wherein the light source is a light emitting diode array comprising a plurality of light emitting diodes.

15 11. The front lighted micro liquid crystal display according to Claim 1 wherein the partial transmission mirror is a 50% transmission mirror.

12. The front lighted micro liquid crystal display according to Claim 1 wherein polarizing media is a polarizing film.

13. The front lighted micro liquid crystal display according to Claim 1  
20 wherein the components of the front lighted micro liquid crystal display are positioned together within a frame that substantially blocks all light from exiting or entering the front lighted micro liquid crystal display except through the front lens surface of the prismic lens.

14. The front lighted micro liquid crystal display according to Claim 1  
25 wherein the first surface and the sloped second surface have an antireflective coating,

the third surface and the shoulder are covered by reflective media and the partial transmission mirror is a 50% transmission mirror.

15. The front lighted micro liquid crystal display according to Claim 14 wherein the polarizing media is a polarizing film.

5 16. The front lighted micro liquid crystal display according to Claim 14 wherein the reflective media is a reflective pad.

17. The front lighted micro liquid crystal display according to Claim 14 wherein the components of the front lighted micro liquid display are bound together within a frame.

10 18. The front lighted micro liquid crystal display according to Claim 14 wherein the frame substantially blocks all light from being exiting or entering the front lighted micro liquid crystal display except through the front lens surface of the prismic lens.

15 19. The front lighted micro liquid crystal display according to Claim 1 wherein the polarizing medium and the partial transmission mirror are a single component.

20. The front lighted micro liquid crystal display according to Claim 14 wherein the polarizing medium and the partial transmission mirror are a single component.

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